**BACKGROUND**

Pleiotrophin (PTN) and midkine (MK) comprise a family of structurally related, developmentally regulated genes. Human PTN is synthesized as a 168 amino acid precursor which is subsequently cleaved to generate a 136 amino acid protein. Human PTN is approximately 50% identical to human MK, with conservation of all 10 cysteines. Cells reported to express PTN include osteoblasts, chondrocytes, fibroblasts, astrocytes, oligodendroglia, Schwann cells, neurons, pituicytes and Leydig cells. PTN is a heparin-binding growth factor that functions as a weak mitogen and promotes neurite-outgrowth from embryonic brain neurons. PTN is expressed at high levels in many tissues during fetal development, but becomes restricted to the brain in adult animals.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: PTN (human) mapping to 7q33; Ptn (mouse) mapping to 6 B1.

**SOURCE**

PTN (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PTN of human origin.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1395 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

PTN (N-15) is recommended for detection of precursor and mature PTN of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PTN (N-15) is also recommended for detection of precursor and mature PTN in additional species, including porcine.


Molecular Weight (predicted) of PTN: 18 kDa.

Molecular Weight (observed) of PTN: 18-25 kDa.

Positive Controls: rat brain extract: sc-2392 or HeLa nuclear extract: sc-2120.

**DATA**

PTN (N-15): sc-1395. Western blot analysis of PTN expression in rat brain tissue extract.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.